Opening of the gall-bladder is followed by a number of therapeutic results: 1. The septic contents of the gall-bladder are evacuated. 2. Calculi, which are most frequently present there, are removed. 3. The other biliary passages, more or less obstructed, either by calculi or by swelling of their walls, are rendered as free as possible. 4. The septic bile is allowed to escape, and mechanically washes out the lower passages, carrying away through the drainage-tube many of the infectious particles. 5. The relief of pressure prevents absorption of the septic elements. 6. The relief to the kidneys, by allowing the bile to pass freely, is also of importance, as they are thus enabled to perform their function more freely in relieving the system of septic and other materials.

The occurrence of a localized abscess of the liver should be followed by free opening and drainage. Medicinal remedies, while affording some amelioration, will probably only give temporary relief.

Leucin and Tyrosin in the Urine in Erysipelas.—DR. THOMAS S. KIRKBRIDE, Jr., makes a valuable contribution to our knowledge of leucin and tyrosin, the history of which has been full of contradictions and untrustworthy statements.

Kirkbride examined the urine of a patient with facial erysipelas, without symptoms or signs on the part of the liver. The urine contained (febrile) albumin. Toward the end of the disease crystals of leucin and tyrosin were found. The urine was acid. In order to positively determine the nature of the crystals they were obtained separately by appropriate chemical procedures and in considerable quantity. The possibility that the leucin and tyrosin were formed from decomposed albuminous substances after leaving the body seems opposed by the fact that the urine had been preserved with formaldehyde, but further investigations on the subject are promised.

Tendency to Bending of the Bones in Cretins under Thyroid Treatment.—TELFORD SMITH (*The Lancet*, October 2, 1897, p. 853), in referring to the rapid growth of the bones of cretins while under treatment with thyroid preparations, speaks of a feature that has been repeatedly observed, namely, a tendency of the bones of the lower extremities to become bent. He gives photographs of a cretin girl at fifteen and a half and seventeen and three-quarters years of age. During the two and a quarter years the patient was under the thyroid treatment, and grew seven and a half inches. The under extremities, particularly the tibia and fibula, in the mean time became markedly bowed, as is shown in the second photograph. The explanation given for this is that under the treatment the rapid growth of the skeleton leads to a softened condition of the bones, resulting in a yielding and bending of those which have to bear weight. As cretins under treatment become much more active and inclined to run about, this tendency to bending has to be guarded against. In this connection it is interesting to note that rickets has been produced in rabbits by Hofmeister, and in sheep and goats by von Eisenberg, by removal of the thyroid gland. Whereas, in rickets, however produced, there is perverted and delayed ossification, resulting in softening and bending of the bones, under thyroid treatment in cretinism there is rapid resumption of growth in the skeleton, leading to softening, which is most marked in the long bones and at the epiphyses. Telford Smith, therefore, recommends that cretins under thyroid treatment should be watched for any commencing bending of the bones of the legs, and if such appears the child should for a time be hindered from walking or the legs supported by light splints.

SURGERY.

UNDER THE CHARGE OF

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Closure of Perforations of the Stomach by the Suturing-in of Omentum.—In performing a gastro-enterostomy upon a patient who had suffered for some time with gastric ulcer and apparently had a pyloric stenosis due to contracture of scars, BRAUN (*Cent. für Chir.*, No. 27, 1897) found that there had been a recent rupture of the stomach. There were numerous fresh adhesions which so bound down the stomach that it was impossible to bring it to the parietal peritoneum; the tissues, on account of the ulcers, were so fragile that they would not retain sutures, and it was, consequently, impossible to close the tear by any of the ordinary methods. He therefore brought up a fold of the great omentum and sutured it over the opening, the gastro-enterostomy was completed, the periosteum washed out, and the abdomen closed. The patient made a good recovery, and in the three and one-half years since that time has enjoyed good health. "This means, therefore, of closing a tear in the stomach has had a fair test; from other cases, which have since been reported, it would seem a method which, where it is necessary, is capable of rendering good service."

Osteoplastic Opening of the Orbital Cavity for Resecting the First Branch of the Trigeminus.—CAHEN (*Cent. für Chir.*, No. 27, 1897) describes the following method of operating for a deeper resection of the supra-orbital nerve after an unsuccessful operation for neuralgia. In many cases the ordinary operation does not secure the desired result, and both patient and doctor are unwilling to take the risk of a removal of the Gasserian ganglion; in these cases the author has employed and advises this operation, which has been successful in his hands.

At either end of the longitudinal incision employed in the ordinary operation, two perpendicular incisions are carried upward, and a flap is raised of skin, periosteum, and bone, which has its base upward. The remainder of the spongiosa and the tabular vitrea of the frontal bone is removed to the extent covered by the flap, the dura mater exposed, and after careful raising of the dura the orbital wall is laid bare. With a small chisel and bone-forceps the wall of the orbital cavity is removed from the orbital margin backward. This exposes the nerve, which is resected as far back as possible; the wound is then packed with iodoform-gauze and secondary sutures inserted. This method, the author believes, will be useful in many cases where entrance into the orbital cavity is desired.

The Application of the X-rays to the Diagnosis of Traumatisms of the Elbow.—The diagnostic value of the skiagraph in cases of injury involving the elbow-joint is fully appreciated by QUÉNU (*Rev. de Ortho.*, July, 1897), who reports a case that had been diagnosticated by one physician as a posterior luxation, and by another as a fracture. At the time he saw it the œdema was so great that it was impossible to determine exactly the relation of the bones; the olecranon alone was accessible, and it appeared to be in its normal position, or at least only slightly elevated. The contraction of the muscle prevented the least motion without intense suffering. A skiagraph was made, and the ulna was shown to be in a state of subluxation, the former attempts at reduction having been only partially successful. He succeeded readily in reducing the luxation, but there was so much swelling that it was impossible to definitely determine whether the reduction was complete. A second skiagraph showed that full reduction had been secured. The author says that the painlessness of this diagnostic method, its certainty and harmlessness make it of great value and almost a necessity if the surgeon would treat fractures involving joints with the greatest care and precision.

The Treatment of Exophthalmic Goitre by the Resection of the Cervical Sympathetic.—GÉRARD-MARCHANT and ABADIE (*La Presse Méd.*, July 3, 1897) base this operation upon the theory that exophthalmic goitre is due to a derangement of the cervical sympathetic nerves, especially an excitative of the vaso-dilators of the cervical sympathetic. The authors believe that the accidents generally following an either partial or total excision of goitre are due to the sympathetic nerves and not to any derangement or poisoning of the system by the secretion of the thyroid gland. The hemorrhage that is so troublesome in these operations they believe to be due to the condition of the vaso-dilator nerves. The case reported of excision of the cervical sympathetics on both sides is as follows: The patient presented the symptoms of exophthalmic goitre, the exophthalmia being the most pronounced, although there was a considerable enlargement of the thyroid gland. The line of incision was from the mastoid in a line directed toward the inner third of the clavicle; it passed posteriorly to the sterno-mastoid; this muscle was drawn anteriorly, and with it the nerves and arteries of the neck, after the resection of the external jugular vein and certain fibres of the superficial cervical plexus. The sympathetic was seen as fine filament upon the prevertebral aponeurosis of the anticus longus muscle of the neck. This was, however, not sufficient to differentiate it, and it was followed up to the superior cervical ganglion. About an inch of the nerve was then resected. The same operation was performed on the opposite side. The patient had no disagreeable symptoms; there was a dilatation of the pupils, but no untoward symptoms of either respiration or heart-action.

There was noted a dilatation of the subconjunctival bloodvessels on the right side after the section of the sympathetic on the left side, which accords with the physiological experiments of Dastre and Morat.

The result attained was very marked; the patient had been unable to close the eyelids on account of the exophthalmia; they gradually receded, and at the end of ten days, when she was discharged, the eyelids closed readily over the eyes.

In direct contrast to the result obtained in the previous case, is that reported by CHAUFFAUD and QUÉNU (*Ibid.*): A patient who had marked exophthalmia and an enlarged thyroid, with all the symptoms of Basedow's disease, was operated on by Jaboulay's method, and both superior cervical ganglia of the sympathetic removed. The operation apparently had no influence upon the disease, the exophthalmos remaining practically just as marked, and no alteration being noted either in the size of the goitre or the pulse or respiration.

The authors do not contend that this one case demonstrates absolutely the inefficiency of this method of treatment, but they believe it should modify the enthusiastic reports of success as given by Jaboulay and others.

The Place of the Murphy Button in Gastro-enterostomy.—MEYER (*Annals of Surgery*, July, 1897), after a critical review of the cases operated upon with the use of the button, and the detailed report of his own cases, arrives at the following conclusions:

1. For gastro-enterostomy Murphy's anastomosis button is the best artificial contrivance up to date. It hastens and simplifies the operation; it enables the patient to be fed through the mouth right after the operation; the anastomosis is still feasible with its help where proper suturing is impossible. We can thus do the operation successfully with the button where otherwise we would have to abandon the same when only using needle and thread. The anastomosis made with it does not contract.

2. In using the button, posterior gastro-enterostomy (Von Hacker's operation) is preferable to the anterior one (Woelfler's), because it favors the progress of the button toward the anus. In both methods, however, the button can drop in the stomach.

3. The presence of the button within the stomach has so far never done any actual harm. This accident is, therefore, not to be considered a drawback to the use of the button.

4. In all cases where reduction of time of the operation is considered of importance, the use of the button is indicated and not the suture.

5. There is no reason borne out by practical experience which should prevent us from making use of the advantages of the button in every case of gastro-enterostomy for malignant disease.

6. If the button be used great emaciation of the patient is no more a contraindication to this operation than it is to gastrostomy in cancer of the œsophagus.